

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
END OF YEAR REPORT
CLEAN WATER ACT SECTION 319 C9-97908114**

Introduction:

A Clean Water Act, Section 319 grant award was made to the Nevada Division of Environmental Protection (NDEP), Bureau of Water Quality Planning on July 29, 2013. Funding under this grant includes FY13 grant funds. This review covers base program activities performed by NDEP during SFY15 (July 1, 2014-June 30, 2015). The 319 funds support the Nevada nonpoint source program and include activities designed to reduce pollutant loads due to nonpoint source pollution, educate Nevadans about appropriate water quality protection activities related to nonpoint source pollution, and coordinate water quality activities with a broad range of stakeholders for implementation of best management practices. During SFY15, NDEP was operating its nonpoint source program under the 1999 State Management Program until February, 2015. After February, the program operated under the Nonpoint Source Management Plan, 2015-2019. The Grant Agreement covers a budget and project period of 10/1/2012 to 9/30/2018. FY13 federal funding for SFY15 base program and demonstration project activities was \$1,262,000. The required match under CWA 319 is 40%. NDEP is providing \$841,333 in match funds (through third party match).

This review was conducted off-site.

Results of Review with Recommendations (success and findings):

1. All base funding tasks funded for SFY15 have been completed or are on track for completion.
2. Equipment purchases for items costing more than \$5,000 were not approved.
3. According to the Compass Data Warehouse, the total expended to date for this grant is \$781,917.
4. Programmatic terms and conditions have been met.
5. Programmatic statutory and regulatory requirements have been met.

Successes:

The following are the State's CWA 319 grant workplan commitments from the 2015 Management Plan and the current progress:

1. **Nonpoint Source Management Plan Update:** Completed
NDEP completed update of the Nevada Nonpoint Source Management Plan. It was submitted to EPA on November 21, 2014. EPA approved the Plan on February 5, 2015. The Plan describes how Nevada's nonpoint source program will take a more proactive role in delivering results through prioritization of waters for restoration, targeted outreach to build support for water quality planning and improvement and

implementation of projects to improve water quality. Key elements of the Plan include enhanced monitoring and data assessment, developing a prioritization strategy for impaired waters, implementing strategies to identify the most direct path to water quality improvement and enhancing education and outreach activities.

2. **Prioritize Impaired Waters: Ongoing**

NDEP completed the TMDL or Alternatives Prioritization Framework document. NDEP will focus on impairments due to nutrients, temperature, sediment, and bacteria. The Framework presents a method for ranking the impairments for potential TMDL/alternative development. The approach was applied to the 2012 303(d) list and resulted in a ranked list of 89 waterbodies (124 waterbody-pollutant combinations mostly within the Humboldt River basin). NDEP's 2016-2022 Vision priority waters will be 1-2 of these waters from the ranked list. Public interest to implement projects is necessary to lead to environmental improvement. NDEP will work with interested parties to identify the watershed. One potential for collaboration is the Nevada Sagebrush Ecosystem Program, a program established to protect and enhance the sagebrush landscape for use by the sage grouse. Several of NDEP's prioritized waters fall within the Program's "core" management areas. The Sagebrush Program is just getting started and will have \$1M each year for SFY16 and 17 to fund projects. Management of the grouse habitat aligns well with nonpoint source management goals, especially for Nevada's riparian areas. NDEP is also pursuing discussions with several other groups in the prioritized areas (see below).

3. **Develop indicators that will be used to document progressive achievement or success in implementing BMPs and NPS control or restoration projects: Ongoing**

A draft list of indicators was developed and final measures are being decided. These indicators include integrating pre- and post-site conditions through data gathering such as establishing photo points, making a detailed site assessment and evaluating success of projects post-implementation. For education programs, success will be evaluated through implementation of a logic model, pre- and post-knowledge statistics, attendance and self-evaluation. All new projects will have specific indicators written into their project contracts and scopes of work to ensure that they have adequate reporting of environmental improvements.

4. **Develop and publicize at least one success story per year: Ongoing**

It is important for incremental progress to be described and reported adequately to tell the story of Nevada's nonpoint source program. The indicators are under final development and will be used to develop a progressive success story by December 31, 2015. Success will be determined by a project's ability to demonstrate progress through measurement of the appropriate indicators.

5. **Invest in water quality improvement and environmental education projects that are likely to provide long-term load reductions and changes in behavior to achieve watershed wide improvements in water quality:** Ongoing

- NDEP issued the annual RFP for project funding on July 18, 2014 under the 1999 Management Plan. Project proposals were due September 5, 2014. Twelve projects were selected for funding at a total of \$1,074,070. Seven implementation projects and 5 education projects were selected. Nevada's current active project inventory contains 38 percent public outreach and education projects (a 22% reduction from 2014) and 62% BMP implementation projects.
- NDEP completed annual GRTS load reduction reporting. The NPS Program made progress in reducing nonpoint source loading of nitrogen, phosphorus and sediment. Projects with associated load reductions were entered into EPA's GRTS system. NDEP's 2014 reported load reductions: nitrogen 166,416 lbs/year; phosphorus 37,993 lbs/year; sediment 3,706 lbs/year.
- Conduct feasibility assessment to determine BMP effectiveness: The assessment is underway and will be completed by December 31, 2015.
- Staff met with the NDEP Integrated Source Water Protection Program and are preparing an action plan for potential projects that overlap between source water protection and nonpoint source.
- Staff met with the Forest Service to discuss common goals and to compare program priorities. NPS and Forest Service program goals align because the Forest Service manages most of the headwaters of Nevada's surface waters. NDEP is reviewing the Forest Service priority waters and comparing them to the NDEP prioritized waters to determine if overlap can lead to collaborative projects.
- NDEP is pursuing opportunities for collaboration with Trout Unlimited. TU is interested in restoring the headwaters of Nevada streams to allow for reintroduction of Lahontan cutthroat trout. TU identified several priority watersheds including Susie Creek which aligns with NDEP's 2016-2022 Vision priority waters. Several opportunities to partner were identified and are being pursued.

6. **Implement a Robust Environmental Education Program:** ongoing

The NPS Program implements an effective environmental education program to create an informed and motivated public that supports and participates in NPS pollution prevention. Environmental education is accomplished through contracted projects implemented by a network of local, state, federal and private partners. All education efforts are intended to affect long term behavior of the recipients. To ensure that the efforts are focused and effective, NDEP uses Logic Models for each program or project and requires measureable statistics that show knowledge gained through the program and potential for behavior change.

7. **Implementation of Watershed Activities:** Ongoing

- **Carson River:** Activities in the Carson River watershed are directed by the Carson River Watershed Adaptive Stewardship Plan. NDEP focused efforts on continuing

successful partnerships that implement water quality improvement projects throughout the Carson River Watershed.

- NDEP provided funding for the Buzzy's Ranch Streambank Revegetation project. This project stabilized approximately 600 feet of river bank using bioengineering techniques. The project is located in Carson City at a location where the river had migrated approximately 118 feet to the west over 14 years. An estimated 180,000 cubic feet of sediment was lost to the river during that time and the bank was near vertical. Willow bundles and stream barbs were installed to help stabilize the bank.

- NDEP provided funding to the Dayton Valley Conservation District to assess condition of past bank stabilization projects along the Middle Carson River. The CD has implemented approximately forty five bank stabilization and river restoration projects using various techniques to reduce erosion over the past 15 years. Existing project locations will be revisited to assess current physical condition and function. The effectiveness of existing bank stabilization projects will be evaluated as a nonpoint source pollution control measure.

- **Colorado River Basin/Las Vegas Wash Watershed:** Activities in the Las Vegas Wash are guided by the Las Vegas Wash Comprehensive Adaptive Management Plan (CAMP). NDEP focused on supporting the active stakeholders who are implementing water quality improvements in the Las Vegas Wash. The main water quality issue addressed is reducing sediment.

- Projects completed under the CAMP by the Coordination Committee include: reconstruction of the Historic Lateral Weir; 70% construction completed at Three Kids Weir; completion of the Silver Bowl and Archery weirs; added 6,700 linear feet of new bank protections; and design of additional weirs. All the weirs help reduce erosion and sediment in the Wash. In addition, 21 acres of the Wash were revegetated with native plants and 30 acres of tamarisk were removed. NDEP supports the Wash Green Up Events which result in revegetation at various sites in the Wash.

- NDEP provided funding to Clark County Water Reclamation District for design, installation and maintenance of a trash boom across a main tributary of the Las Vegas Wash. This limits the amount of trash entering the Wash and Wetland Park.

- NDEP also supported the Reclamation District's Dog Waste Collection Program. This included installation of dog waste stations in communities to reduce the nitrogen and phosphorus entering the Wash and Lake Mead. Over 240,000 bags were purchased and as of June 30th, 33,200 used bags were collected resulting in 8,300 pounds of pet waste properly disposed.

- NDEP provided funding the Nevada Division of Forestry for tamarisk removal at Big Bend State Park along the Colorado River. Tamarisk monocultures negatively impact local soil and water quality by threatening

limited water resources through heavy water intake, increasing soil surface salinity and increasing adjacent water salinity levels.

- **Lake Tahoe Basin:** The Lake Tahoe TMDL which was approved in August 2011, quantified the relative contributions of fine sediment, phosphorus and nitrogen inputs to Tahoe from major pollutant sources, quantified load reductions needed and established a recommended strategy to achieve pollutant load reductions. NDEP is actively involved in and supportive of the Tahoe TMDL implementation. Staff supporting the TMDL implementation are funded through the CWA 106 grant.

Interlocal Agreements (ILAs): NDEP monitored Nevada Urban Implementer's activities and compliance with obligations and commitments contained in the ILAs.

- **Stormwater Load Reductions Plans (SLRPs):** Draft Sediment Load Reduction Plans were submitted by Washoe and Douglas counties and NDOT in August, 2014. Final SLRPs were submitted by each jurisdiction. NDEP worked with the jurisdictions on minor clean up issues with the SLRPs. The SLRPs are final and NDEP issued letters of approval to the jurisdictions.
- **Lake Clarity Crediting Program:** No registration activity due to revision to the Crediting Program Tools and process. The Crediting Program Handbook was updated to reflect revisions to policies and process refinements and enhancements that were born from the Stormwater Tools Improvement Project (activities described below). NDEP staff worked with contractor to complete the updates thru multiple draft iterations. Version 2 of the Handbook was released to the public and rolled out to users in August 2015.
- **Annual Stormwater Reports:** Each Urban Implementer submitted annual stormwater reports summarizing their annual activities and progress by the March 15 deadline. NDEP reviewed and approved the reports.
- **Stormwater Monitoring Program:** A scientific assessment report was provided in August 2014. Concurrent with the Annual Stormwater Reports, Urban Implementer's submitted a WY2014 Monitoring Report summarizing monitoring activities and preliminary results. NDEP also reviewed and commented on a draft RSWMP Framework and Implementation Guidance Document provided in March 2015.

Stormwater Tools Improvement Project: Most Tier 1 and Tier 2 improvements under the LCCP Stormwater Tools Improvement grant were completed. The PLRM, BMP RAM, Road RAM and CAP were released for user testing. The contractor revised the stormwater tools to resolve issues identified during testing. Contractor also completed an update to the Lake Tahoe TMDL Land Use layer resulting in more efficient processing of PLRM and more accurate results. Tools user manual documentation was updated to reflect modifications. The updated

tools were finalized and rolled out to users in August 2015. A draft workplan for hosting and maintenance support of online tools was crafted.

TMDL Management System: The Handbook specifying the coordinated set of operational procedures by which the TMDL Program will be managed through time was crafted and reviewed with Lahontan and Water Board Executives. After addressing their feedback, the Handbook was accepted and approved by the TMDL Program Agencies at the end of the 2014 calendar year. Tracking and reporting protocols for the nonurban source categories were finalized. The TMDL Online Interface was developed and is up and running. One complete Management System cycle was piloted over the course of the year during which all system elements and the following deliverables were executed and released to the public:

- TMDL Performance Report (2014 and 2015)
- 2015 TMDL Annual Strategy
- 2014 Finding and Recommendations Memo
- 2014 Program Review Meeting
- 2014 Decision Record Memo

Project Support

- NDEP is supporting Washoe County, Kingsbury GID and Nevada Department of Transportation to purchase best available technology bulk material spreaders. The spreaders are designed and operated specifically to apply abrasives more efficiently for stormwater quality improvement by reducing sediment loading on roadways.
- NDEP is providing funding to the Nevada Tahoe Conservation District to assist parcel owners in retrofitting with properly designed and installed BMPs. A minimum of 50 additional residential and small multifamily residential properties will be retrofitted. NDEP also supports the Tahoe Regional Planning Agency to continue to facilitate BMP installation on commercial and multifamily properties.
- Washoe County is purchasing a High Efficiency Sweeper. The sweeper is a mobile BMP to use to remove sediment accumulated on roads. Removal of sediment from paved surfaces which are directly connected to a waterbody is an effective method to reduce fine sediment particles and phosphorus loads in that waterbody.
- NDEP is supporting the Incline Village Green Streets project which will install at least 5 rain gardens in the NDOT right of way to retain and treat, by infiltration, the first flush stormwater runoff.

Evaluate and develop Lake Tahoe nearshore water quality indicators:

Indicators were recommended and funding secured for pilot monitoring. Pilot monitoring continued. A draft report for the biologic community structure metrics (fish & crayfish, macroinvertebrates, macrophytes) was reviewed and comments provided to be addressed in the final report.

- **Humboldt River Watershed:** NDEP continues to strengthen its working relationships with stakeholders throughout the watershed. The focus is on reducing nutrient and sediment loading in the Humboldt River. This will be accomplished by building partnerships with landowners and active agencies to develop and implement one watershed-based plan or alternative strategy in a tributary in the basin.
 - NDEP partnered with the Nevada Division of Forestry on the South Fork River Stabilization and Meadow Rehabilitation project. The Reservoir and River are experiencing increased levels of sedimentation due to rapid erosion of streambanks upstream and downstream of the Reservoir. Noxious weeds will be eradicated and native species established along the streambanks and meadows.
 - The NPS Program coordinates with federal land managers and other stakeholders in the Humboldt Basin to implement projects, leverage resources and garner support. Focus is on building interagency relationships to implement coordinated projects. The Humboldt Watershed Habitat and Water Quality Improvement Coordinator position was funded for an additional two years. This position aims to bring together current public and private activities to address watershed-wide resource concerns being heavily impacted by invasive weeds and impacts to river stability and overall watershed health.
- **Truckee River Watershed:** NDEP is focusing on continuing to have a presence in the watershed while the stakeholders determine outcomes of the TMDL revision process. Staff will work with partners in the watershed to identify priority sub-watershed for assessment, watershed based plan development or straight to implementation projects.
 - NDEP is supporting the Keep Truckee Meadows Beautiful effort. A Watershed Warrior Video will be created to introduce students to nonpoint source pollution, invasive species and action to protect the watershed.
- **Walker River Watershed:** NDEP is focusing on reducing nutrients and sediment in the Walker River through implementation of water quality improvements and channel restoration through coordination with partners that are active in the watershed. NDEP works with the Conservation Districts to implement small scale public education activities and bank stabilization projects. Efforts to develop a watershed plan are not viewed as feasible at this time.
 - The Mason Valley Conservation District identified 340 linear feet of unstable river bank on the Walker River for restoration. The CD attempted to stabilize the bank in 2006; however, vegetation failed to establish and the river bank continue to erode 1-3 feet per year and is currently over 10 feet high. The bank will be re-contoured to a 3:1 slope and armored with willow bundles, willow plantings and riprap as needed.

- The Walker River Clements Bank Stabilization Project involves river bank stabilization to mitigate bank erosion. The river bank was eroding 3-4 feet per year and had a bank over 8 feet high. The Mason Valley CD reshaped the river bank, installed rock protection and installed willow bundles.
- **Non-Priority Watershed Activities:** The contract with Eureka County on the Robert's Creek Grazing Allotment was completed. Diamond Cattle Company installed an offsite livestock watering facility. A fire in the area prevented livestock from using the area initially and the project was extended to allow project effectiveness and monitoring to be concluded after cattle were re-introduced.

Findings: NDEP performed satisfactorily.

Resolution Plan and Timing

None

EPA Contact

Stephanie L. Wilson
Nevada Project Officer
EPA, WTR-3-4
75 Hawthorne Street
San Francisco, CA 94105-3901
(775) 885-6190

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